



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

VJ

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,054	08/26/2003	Rolf Bruck	E-80656	7377
24131	7590	05/03/2005		EXAMINER
LERNER AND GREENBERG, PA				KENNY, STEPHEN
P O BOX 2480				
HOLLYWOOD, FL 33022-2480			ART UNIT	PAPER NUMBER
			3726	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/650,054	BRUCK, ROLF
	<b>Examiner</b>	<b>Art Unit</b>
	Stephen J Kenny	3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 February 2005.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.  
 4a) Of the above claim(s) 11-22 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-10 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

claims 1- 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Toshiaki (JP 01012018).

Regarding claim 1, Toshiaki discloses forming a honeycomb structure having a measurement sensor (40) and sheet metal layers forming a body structure (21) which allowing fluid to flow through the body structure, the body having a cohesive free volume (50) receiving said measurement sensor (40) comprising: selecting a section of sheet metal strip from a supply roll (22), reading/identifying a hole position & edge (50-52) from a memory (i.e. “specified intervals” implies that the positions are measured and predetermined, and therefore are from “memory”) to be formed in the sheet metal, constructing the holes & edges (50-52) at the associated hole position, repeating this process for the desired number of layers, winding or “structuring” said sheets into a honeycomb structure, introducing the structure into a casing tube (11), introducing the measurement sensor (40) into the structure & tube (see Figures 1, -5).

Regarding claims 2-8, Toshiaki discloses the hole positions forming a cohesive cavity in the honeycomb body having a geometry which corresponds to the sensor’s dimensions (40) (Figure 1). It is inherent that the cavity be larger by a predetermined tolerance (gathered both from empirical data i.e. measurements, and formed in a mathematical model to match different

sensors sizes to different hole configurations) in order for the sensor to be accepted within the cavity. If the cavity were formed too small, the sensor would not fit within the honeycomb body making the structure useless, meanwhile if the cavity were formed too large the sensor would not mount properly.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshiaki.

Toshiaki discloses the claimed invention except for explicitly stating that the holes are of an oval shape, and the sensor is an HC or lambda sensor. It would have been an obvious matter of design choice to form oval holes, and use such a sensor, since applicant has not disclosed that such a hole/sensor solves any stated problem or is for any particular purpose, and it appears that the invention would perform equally well with the hole/sensor of Toshiaki.

***Response to Arguments***

Applicant's arguments filed 2/18/05 have been fully considered but they are not persuasive.

Applicant has put forth the argument that the USC 102 rejection is improper because the Toshiaki reference does not disclose “structuring” after the holes have been formed in the sheet metal layer.

Firstly, this argument is not persuasive given the claims specifically state that such “structuring” need not be performed. The language “if required” in steps (d) and (e) of claim 1 explicitly state that “structuring” step is optional, thus the reference need not disclose said “structuring”. Furthermore, as applicant has admitted on page 13 lines 19- 22 of the correspondence filed 2/18/05, the “structuring” (i.e. the forming of corrugations) “may” be performed, or alternatively, “when a flat section is required no corrugations are formed”.

Secondly, The examiner points out that the Toshiaki reference indeed discloses “structuring” the sheet layers, subsequent to forming the holes, in the following ways:

1) by way of the winding/stacking the foils as indicated in Figure 2. In other words Toshiaki meets the limitations of the claims by forming voids (50) in the foils, followed by a simultaneous and winding or “structuring” of the foils into the form of the honeycomb structure. The winding/bending of the sheets (with the holes already formed therein) will cause the geometry of the sheets to change (or be “structured”) such that the inner most portion of the honeycomb structure will have a radius of curvature different from the portion of the outermost portion – therefore the flat & corrugated sheets are “structured”.

2) forming voids (50) in the foils, followed by a winding operation, and then “after winding it, making these holes accord with each other” (Abstract – Purpose, line 3). In making the holes accord with each other, some “structuring” or modifying/positioning will be performed. The only temporal order of processes is that the “structuring” occur after the voids have been formed, it is irrespective of when the winding function is performed.

Accordingly, the Toshiaki reference does indeed anticipate the claimed invention.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J Kenny whose telephone number is 571-272-4531. The examiner can normally be reached on mon - fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sk S. Kenny



DAVID P. BRYANT  
PRIMARY EXAMINER